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## PATENT COOPERATION TREATY

## PCT

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Translation

Applicant's or agent's file reference B 14215.3JCI		FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/050195	International filing date (day/month/year) 19 décembre 2003 (19.12.2003)	Priority date (day/month/year) 23 décembre 2002 (23.12.2002)	
International Patent Classification (IPC) or national classification and IPC G06T 11/00			
Applicant COMMISSARIAT A L'ENERGIE ATOMIQUE			

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 2 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 20 juillet 2004 (20.07.2004)	Date of completion of this report 31 May 2005 (31.05.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/050195

## I. Basis of the report

1. This report has been drawn on the basis of (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.):

- ☐ the international application as originally filed.
- ☒ the description, pages 1-13, as originally filed,  
 pages \_\_\_\_\_, filed with the demand,  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the claims, Nos. \_\_\_\_\_, as originally filed,  
 Nos. \_\_\_\_\_, as amended under Article 19,  
 Nos. \_\_\_\_\_, filed with the demand,  
 Nos. 1-6, filed with the letter of 14 March 2005 (14.03.2005),  
 Nos. \_\_\_\_\_, filed with the letter of \_\_\_\_\_.
- ☒ the drawings, sheets/fig 1/4-4/4, as originally filed,  
 sheets/fig \_\_\_\_\_, filed with the demand,  
 sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_,  
 sheets/fig \_\_\_\_\_, filed with the letter of \_\_\_\_\_.

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

4. Additional observations, if necessary:

# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR 03/50195

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

### 1. Statement

Novelty (N)	Claims	1-6	YES
	Claims		NO
Inventive step (IS)	Claims		YES
	Claims	1-6	NO
Industrial applicability (IA)	Claims	1-6	YES
	Claims		NO

### 2. Citations and explanations

Reference is made to the following documents:

D1: US-B-6 181 764 (MELEN ROBERT E ET AL) 30 January 2001 (2001-01-30)

D2: KANG S T ET AL: "A projection method for reconstructing X-ray images of arbitrary cross-section" NDT & E INTERNATIONAL, BUTTERWORTH-HEINEMANN, OXFORD, GB, vol. 32, no. 1, January 1999 (1999-01), pages 9-20, XP004292640 ISSN: 0963-8695

D3: US-B-6 424 6921 (SUZUKI TATSURO) 23 July 2002 (2002-07-23)

D4: EP-A-0 683 389 (TOKYO SHIBAURA ELECTRIC CO) 22 November 1995 (1995-11-22)

#### 1. Inventive step

1.1 The present application fails to comply with the requirements of PCT Article 33(1) since the subject matter of claims 1 to 6 does not meet the requirement of inventive step defined in PCT Article 33(3).

Document D1, which is considered to be the prior art

closest to the subject matter of claim 1, describes (see column 9, line 39 to column 11, line 9 and figures 6 and 7) a method for reconstructing an X-ray image of an object exposed to diverging radiation subject to attenuation, including a multi-detector array for measuring the projected attenuation and providing projection slices with overlapping portions. The method uses a combination of slices to reconstruct the X-ray image, as well as the following steps:

- (a) The object is broken down into volume elements (see "voxels" 445, 450, 455, etc. in figure 6) defining reconstruction heights (see "image plane" 430, 435 and 440 in figure 6).
- (b) The volume elements are associated with at least one detector (see detector 420 in figure 6).
- (c) An attenuation value is assigned to each volume element depending on the measured values (see column 9, line 39 to column 10, line 38).
- (d) The attenuation values of the volume elements are combined with the various reconstruction heights (see column 10, line 66 to column 11, line 9).

- 1.2 Dependent claims 2 to 6 do not contain any features which, when combined with the features of any one of the claims to which they refer, might define subject matter that complies with the requirements of inventive step of the PCT (see documents D2 and D3 and the corresponding passages cited in the search report).